

Amendment to the Claims:-

This listing of claims will replace all prior versions, and listings, of claims in the application:-

Listing of Claims:-

Claims 1-23 (Withdrawn)

Claim 24 (Currently amended) A method of treatment of human malignancies, comprising administering modified isolated and purified recombinant human arginase I to a patient, wherein said arginase comprising said chemical modification resulting in a specific activity of at least 336 I.U./mg, a purity of 80-100% and an extended half-life of said human arginase I for at least 3 days.

Claim 25 (Canceled)

Claim 26 (Previously presented) The method of treatment according to claim 24, wherein said human malignancies are selected from the group consisting of: liver tumor, breast cancer, and rectal cancer.

Claim 27 (Currently amended) The method of treatment according to Claim 24 wherein said modified arginase has an extended half-life of at least 6 days in a human having a malignancy.

Claim 28 (Previously presented) A method of treatment malignancies of a human patient comprising administering a pharmaceutical composition that reduces the physiological arginine level in said patient to below 10 μ M for at least 3 days.

Claim 29 (Currently amended) The method of Claim 28, wherein said method is performed in the absence of protein degradation breakdown inhibitor.

Claim 30 (Canceled)

Claim 31 (Canceled)

Claim 32 (Currently amended) The method of treatment according to Claim 29 28 wherein said composition comprises: modified comprising isolated and purified recombinant human arginase I, said modification resulting in an extended half-life of said human arginase I of at least 6 days, said arginase having a specific activity of at least 336 I.U./mg, a purity of 80-100% and an extended half-life of at least 3 days.

Claim 33 (Canceled)

Claim 34 (Canceled)

Claim 35 (Previously presented) The method of treatment according to Claim 24, wherein said human arginase I is modified by pegylation.

Claim 36 (Currently amended) The method of treatment according to Claim 24, wherein said method is performed in the absence of protein degradation breakdown inhibitor.

Claim 37 (Previously presented) The method of treatment according to claim 28, wherein said human malignancies are selected from the group consisting of: liver tumor, breast cancer, and rectal cancer.